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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SWERDLOW, DANIEL

ART UNIT PAPER NUMBER

2615

DATE MAILED: 10/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/520,260

**Applicant(s)**

SVENDSEN ET AL.

**Examiner**

Daniel Swerdlow

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 6-17 is/are pending in the application.
- 4a) Of the above claim(s) 11-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 6-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7 August 2006 has been entered.

### ***Election/Restrictions***

2. Newly submitted claims 11 through 17 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

3. Claims 7 through 10, 11, 12 through 14, 15, 16, and 17 represent distinct species of the invention of generic claim 6. The species represented by Claims 7 through 10 is illustrated by Fig. 1. The species represented by Claim 11 is illustrated by Fig. 5. The species represented by Claim 15 is illustrated by Fig. 4. The species represented by Claims 16 and 17 are not illustrated but are clearly species on a par with that of Claim 15. The receiver connection, switch, and various battery connections can all be applied independently of the arrangement in Claims 6 through 10 and of one another.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 11 through 17 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

***Claim Rejections - 35 USC § 103***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. **Claims 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hickox (US Patent 3,598,928) in view of Feldmann.**
3. Regarding Claim 6, Hickox discloses a hearing aid (Fig. 2) comprising a circuit module 13 with a microphone (Fig. 4, reference 29; column 3, lines 24-26) other hearing aid components (i.e., an amplifier) and battery connections (column 3, lines 39-42) and printed conductors (i.e., electric leads which extend along the surface) attached to an outer cover mounting plate 12 (column 3, lines 35-41). Therefore, Hickox anticipates all elements of Claim 6 except the circuit module being a structural part of the hearing aid. Feldmann discloses molded circuit interconnect technology in which electronic components are mounted directly on a product casing (i.e., structural part) and interconnected with leads bonded to the casing surface (Fig. 4; abstract). Feldmann further discloses that such an arrangement has the advantages of miniaturization, automation and environmental compatibility (Fig. 4). It would have been obvious to one skilled in the art at the time of the invention to apply molded interconnection as taught by Feldmann to the hearing aid taught by Hickox for the purpose of realizing the aforesaid advantages.
4. Regarding Claim 10, Hickox further discloses an in-the-ear hearing aid (Fig. 2; column 1, lines 6-9) with a casing 11 that corresponds to the shell claimed and a circuit module 13 and

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outer cover mounting plate 12 arrangement that corresponds to the faceplate claimed with printed conductors (i.e., leads) on the inside of the outer cover mounting plate 12.

5. **Claims 7 through 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hickox in view of Feldmann and further in view of Gath (US Patent 3,239,093)**

6. Regarding Claim 7, as shown above apropos of Claim 6, the combination of Hickox and Feldmann makes obvious all elements except the hearing aid being a behind the ear style hearing aid. Gath discloses a behind the ear hearing aid that has a casing that encloses the components and the leads thereof (Figs. 1-4; column 1, lines 60-64) and comprises a circuit module with a plurality of electronic components (column 3, lines 37-43). One skilled in the art would have known that behind the ear style hearing aids offer advantages in economy and comfort. It would have been obvious to one skilled in the art at the time of the invention to apply the behind the ear form factor, as taught by Gath to the combination made obvious by Hickox and Feldmann for the purpose of realizing the aforesaid advantages.

7. Regarding Claim 8, Gath further discloses the circuit module disposed as an internal wall dividing the case into two compartments (Fig. 4).

8. Regarding Claim 9, Feldmann further discloses double-sided interconnection (i.e., a lead penetrating through a thickness of a wall part) (Fig. 10).

#### ***Response to Arguments***

9. Applicant's arguments filed 7 August 2006 have been fully considered but they are not persuasive.

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10. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, the claimed invention is an obvious combination of the hearing aid elements taught in Gath and Hickox and the molded interconnection taught in Feldmann. There is nothing about hearing aids or molded interconnection that render them unsuitable for combination in the view of one of ordinary skill in the art. Evidence of this is provided by US 2003/0199204 A1 to Sauer et al, which discloses use of molded interconnections in both in-the-ear and behind-the-ear hearing aids (Paragraph 0015).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Swerdlow whose telephone number is 571-272-7531. The examiner can normally be reached on Monday through Friday between 7:30 AM and 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh H. Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Daniel Swerdlow  
Primary Examiner  
Art Unit 2615

ds

22 October 2006